



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/944,536

08/31/2001

Lee C. Moore

D/A0A45

3291

7590 06/12/2007
Patrick R. Roche, Esq.
Fay, Sharpe, Fagan, Minnich & McKee, LLP
1100 Superior Avenue, 7th Floor
Cleveland, OH 44114-2518

EXAMINER

KOYAMA, KUMIKO C

ART UNIT

PAPER NUMBER

2876

MAIL DATE

DELIVERY MODE

06/12/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/944,536

Applicant(s)

MOORE, LEE C.

Examiner

Kumiko C. Koyama

Art Unit

2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-8,10-13,15-18 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-8,10-13,15-18 and 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Amendment received on March 22, 2007 has been acknowledged.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 2, 4, 5, 7, 10-13, 18 and 20-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sotomayor (US 5,963,205) in view of Gillings et al (US 5,666,490).

Sotomayor discloses an automatic index creation for a word processor. Sotomayor discloses that HTML allows an author to specify up to six levels of heading information bracketed by six different tokens. These tokens are considered as sub-section delimiter and the tokens are predetermined machine readable symbol. The table-of-contents summary page 80 comprises a table of contents, generated from the heading tokens inserted into source document 20 by its author, automatically derived by the summary page generator (col 10, lines 2-6). Since the heading tokens are inserted into source document 20 by its author, Sotomayor discloses determining a sub-section delimiter definition. Sotomayor discloses that the IPF paragraph objects for the source document 20 is scanned to find all headings in a document (col 15, lines 60-63). Such disclosure teaches searching the document to find occurrences of items corresponding to the define sub-section delimiter. Sotomayor also discloses that for the table-of-

Art Unit: 2876

contents index list 43, the summary page generator 40 always generates all 6 heading levels rather than giving the user the ability to select the number of level headings (col 15, lines 60-63 and col 16, lines 1-5). Such disclosure teaches generating the index for the document with all found items corresponding to the sub-section delimiter occurrences. Sotomayor also discloses a computer stored document (col 33, lines 30-33), and therefore, Sotomayor teaches a document storage device.

Sotomayor fails to teach a document input device operative to provide an electronic version of a document, search for text and a document divider to operative to divide the document into sub-sections. Sotomayor also fails to teach scanning the document to generate scanned document data and performing recognition functions on the scanned document data to generate a recognized version of the document.

Gillings discloses that documents containing critical trial data are scanned and converted to an electrical format. After scanning, the documents are indexed to enable tracking of the documents. The index information may comprise a combination of system-defined and user-defined index fields (col 4, lines 5-10). The index information comprises a series of system defined and user-defined index fields. The fields are defined during protocol set-up by the system administrator. The user-defined fields enable the system administrator to tailor the index information for a given protocol (col 10, lines 28-34). Gillings discloses that to initiate indexing, a batch is selected using the scan batch. Such disclosure teaches that the document is divided.

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Gillings to the teachings of Sotomayor in order to provide an automatic index generating that accommodates paper documents source as

Art Unit: 2876

well as electronic word document sources to further expand the usefulness of the automated index generation. Such modification also expands the marketable area.

3. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sotomayor in view of Gillings and further in view of Kuga et al (US 5,276,616). The teachings of Sotomayor as modified by Gillings have been discussed above.

Sotomayor as modified by Gilings fails to teach displaying the created index, checking that the displayed index is correct and correcting the index.

Kuga further discloses an index generating unit 6 including an index entry list generator 22 connected to text storage 20 for extracting index entries from the textual data, an index entry storage 24 connected to index entry list generator 22 for storing the index entries outputted from the generator 22, and an index editor 26 for editing the index entries stored in index entry storage 24 based on the instructions from the input unit 2, which includes a keyboard (col 7, line 24) and for applying the edited index entries to printer 10. Such disclosure teaches checking and correcting the index. Index editor 26 is for alphabetically rearranging the index entries and classifying the same into different initial letters to enable printing of the index (col 7, lines 40-52). Kuga also discloses a text input unit, which is a flexible disk driver for applying text data stored in an external medium to text editor 18, and the output of the text editor is connected to display (col 7, lines 34-36). Such disclosure teaches that the text is in an electronic form. Kuga further discloses that the input unit 2 is to enable input by an operator by generating signals such as character data or operation codes in response to a manual operation, a text editing unit 4 connected to the input unit 2, a display unit 8 for displaying the edited text or the like, an index generating unit 6 connected to input unit 2 and text editing unit 4 for automatically generating an

Art Unit: 2876

index from the text edited by text editing unit 4 and index generating unit for printing the edited text or the index on paper 28 (col 7, lines 10-23). Kuga teaches a keyword database for storing extracted set of keywords that are updated and added by the operator through the keyboard (col 3, lines 35-45).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to integrate the teachings of Kuga to the teachings of Sotomayor as modified by Gillings in order to ensure the accuracy of the index such that erroneous results are not produced as a result from misinterpreted or misread document indexes.

4. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sotomayor in view of Gillings as applied to claim 10 above, and further in view of Schmidt et al (US 4,903,229). The teachings of Sotomayor as modified by Gillings have been discussed above.

Sotomayor as modified by Gillings fail to teach that the print engine comprises a xerographic printer.

Schmidt teaches a forms generating and information retrieval system utilizing a xerographic print engine 24 (col 2 line 34).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Schmidt to the teachings of Sotomayor as modified by Gillings because the xerographic print engine generates forms and inures the benefits of graphic reproduction.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sotomayor in view of Gillings and Schmidt as applied to claim 15 above, and further in view of Herregods et

Art Unit: 2876

al (US 6,064,397). The teachings of Sotomayor as modified by Gillings and Schmidt have been discussed above.

Sotomayor as modified by Gillings and Schmidt fail to teach that the print engine comprises an inkjet printer.

Herregods teaches that a printer can be a inkjet printer (col 1 line 42).

Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to modify the teachings of Herregods to the teachings of Sotomayor as modified by Gillings and Schmidt because an inkjet printer can provide a reproduction of colored document, therefore it can provide a more precise reproduction of the document when the document includes colored features.

Response to Arguments

6. Applicant's arguments filed March 22, 2007 have been fully considered but they are not persuasive.

Applicant submits that the Office Action does not assert that Sotomayer and/or Gillings discloses determining a subsection delimiter wherein determining the subsection delimiter comprises a user placing a predetermined machine-readable symbol representing a demarcation point a **printed version** of the document as the subsection delimiter. However, the Examiner respectfully disagrees because the rejection was based on the combination of Sotomayer and/or Gillings, wherein Sotomayer teaches a source document, and the teachings of Gillings suggests that the source document is a paper/printed document being scanned into the system via a scanner. The method taught by Sotomayer in which the tokens are markings are applied on a

document can be applied to a printed/paper version of Gillings. Therefore, even though Sotomayer alone may not teach a paper/printed version of the document, with the combination of Gillings, the prior art meets the recited claims.

The Applicant also submits that Sotomayer and Gillings do not disclose or suggest selecting an exemplary subsection title, performing document recognition or optical character recognition on the selected exemplary subsection title to determine at least one recognized property, and using the at least one recognized property of the exemplary subsection title as a subsection delimiter definition. However, the Examiner respectfully disagrees. As described in the body of the rejection, Sotomayer discloses that the HTML allows an author to specify up to six levels of heading information bracketed by six different tokens. By specifying these tokens, the users is selecting an exemplary subsection title, which is the headings. Sotomayer also discloses a summary page generator for generating a table of contents, which also includes searching and using the subsection title as a delimiter definition. Although Sotomayer does not specifically disclose optically recognizing, such limitation is taught by Gillings, who teaches scanning of the document.

The Applicant stated that the disclosure that the summary page generator uses the tokens to generate the summary does not disclose or suggest that a user designated the tokens for use in generating the summary. However, the Examiner respectfully disagrees. Not only does Sotomayer discloses that the author specifies that tokens, but also Gillings teaches a user-defined index fields, which teaches a user designation for use in generating the index. Therefore, the modification of Sotomayer and Gillings as a combination teaches a document processor operator designating the tokens for use as a delimiter definition. Furthermore, the Applicant submits that

Gillings does not teach “based on recorded information regarding occurrences corresponding to a delimiter definition wherein the recorded information is provided by a delimiter searcher that is operative to search for and record text and text location information regarding occurrences corresponding to a delimiter definition as recited in claim 10.” Sotomayer already discloses searching for, record the heading and heading location in order to create the table of contents. However, Sotomayer teaches a token specified by the user, but not necessarily a text inputted by the user. On the other hand, Gillings teaches a user specified indexing, which teaches the silent limitation of Sotomayer. Therefore, the combination of Sotomayer and Gillings teaches the recited claim limitation.

Applicant submits that the Sotomayer does not disclose or suggest a document processor operator indicating that the tokens should be used as subsection delimiter. However, Gillings discloses a user-defined index fields, which requires the input from a user, who is the operator. Also Sotomayer also suggests the input by the user since the user must specify the specifics of the tokens. Therefore, the combination of Sotomayer and Gillings discloses and suggests the claimed limitation. The above, also corresponds to the arguments regarding an indication of a token as a delimiter definition.

Allowable Subject Matter

7. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
8. The following is a statement of reasons for the indication of allowable subject matter:

Prior art of record, Sotomayor discloses an automatic index creation for a word processor. Sotomayor discloses that HTML allows an author to specify up to six levels of heading information bracketed by six different tokens. These tokens are considered as sub-section delimiter and the tokens are predetermined machine readable symbol. The table-of-contents summary page comprises a table of contents, generated from the heading tokens inserted into source document by its author, automatically derived by the summary page generator. Sotomayor discloses that the IPF paragraph objects for the source document is scanned to find all headings in a document. Sotomayor also discloses that for the table-of-contents index list, the summary page generator always generates all 6 heading levels rather than giving the user the ability to select the number of level headings. Sotomayor also discloses a computer stored document.

However, Sotomayor fails to teach displaying plurality of document pages on a user interface, selecting at least one demarcation point on at least one of the plurality of pages, and using the at least one demarcation point as the defined sub-section delimiter.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

Art Unit: 2876


will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kumiko C. Koyama whose telephone number is 571-272-2394. The examiner can normally be reached on Monday-Friday 8am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 571-272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Kumiko C. Koyama
June 11, 2007


MICHAEL G. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800